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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/719,104

11/21/2003

Steven R. Sedlmayr

AUO1015

1947

7590

06/27/2006

Law Office of Roxana H. Yang

P.O. Box 400

Los Altos, CA 94023

EXAMINER

PRITCHETT, JOSHUA L

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/719,104

Applicant(s)

SEDLMAYR, STEVEN R.

Examiner

Joshua L. Pritchett

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 133, 134, 136-140, 142-146, 148-152 and 154-156 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 133, 134, 136-140, 142-146, 148-152 and 154-156 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to Request for Continued Examination and Amendment filed April 18, 2006. Claims 133, 139, 145 and 151 have been amended as requested by the applicant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 133, 134, 136-140, 142-146, 148-152 and 154-156 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karasawa (US 5,200,843) in view of Konno (US 4,497,015).

Karasawa et al. disclose in fig. 1 a system and method of producing two or more collinear beams of electromagnetic energy/light, comprising (a) means (2, 3, 4) for producing a two or more of separate beams (fig. 1, beams separated by dichroic mirrors 5 and 7) of electromagnetic energy/light each of the separate beams of electromagnetic energy/light having a same selected predetermined orientation (S or P, see fig. 5 as an example of S) of a chosen component of electromagnetic wave field vectors substantially across each beam, and a predetermined range of wavelengths (from light source 1); (b) adjusting at least one of the primary color beams of light

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by removing at least a predetermined portion of electromagnetic energy from the at least one beam at a beam stop (fig. 13); the liquid crystal light valves of Karasawa (8B and 8R) will block a portion of the light incident the valve outside the aperture of the valve, thus the valve functions as a beam stop for errant light; (c) means (8R, 8G, 8B) for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of a plurality of portions of each of the separate beams of electromagnetic energy/light by passing each of the separate beams of electromagnetic energy/light through a respective one of a plurality of altering means in a single direction (fig. 1) whereby the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy/light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate beams of electromagnetic energy/light passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors (column 5, lines ¹18-23); (d) means (9) for combining more than two altered separate beams of electromagnetic energy/light into a single collinear beam of electromagnetic energy/light without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy/light; (e) means (12) for passing a resolved beam of electromagnetic energy/light to a projection means (13), the projection means receiving only electromagnetic energy /light having substantially the same selected predetermined orientation of the chosen component of electric field vectors (S or P from linear polarizer¹ 5),. and means (5 or 7) for adjusting the electromagnetic/light spectrum of at

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least one of the separate beams of electromagnetic energy/light in which the means for adjusting the electromagnetic/light spectrum of at least one of the separate beams of electromagnetic energy/light includes means for adjusting a predetermined range of wavelengths (the dichroic mirrors filter specific wavelengths e.g. blue) and a magnitude (in so far as the magnitude of the remove wavelength is adjusted to zero) of at least one of the separate beams of electromagnetic energy/light. Karasawa et al. disclose the claimed invention except for the separated beam being a substantially uniform flux intensity substantially across the beam of electromagnetic energy/light and a rectangular cross sectional area; in step (c) wherein the beams are combined without previously subcombining any plurality of the altered separate beams of electromagnetic energy/light; and having (e) means for resolving from the single collinear beam of electromagnetic energy/light a first resolved beam of electromagnetic energy/light having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy/light having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors, whereby the first and second selected predetermined orientation of the chosen component of the electromagnetic wave field vectors are different from one another. However Karasawa et al. also teach that when using a polarizing beam splitter like element 2 (which resolves from the single collinear beam of electromagnetic energy/light a first resolved beam of electromagnetic energy/light having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy/light having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors, whereby the first and

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second selected predetermined orientation of the chosen component of the electromagnetic wave field vectors are different from one another, see figs. 2 and 3), an absorption type polarizer like 14 is not required (see column 5, lines 49-52) and that absorption type polarizers generate higher temperatures which can cause stability problems in the system (see column 1, lines 54-61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the analyzing absorption type polarizer (15) with a polarizing beam splitter to further reduce the heat in the system. Therefore, step (d) is satisfied. Additionally, Karasawa et al. teach in a prior art embodiment (fig. 13) a system of producing one of more collinear beams with a means (46) for combining more than two altered beams (from 8B, 8R and 8G) without previously subcombining any plurality of the altered separate beams of electromagnetic energy/light (fig. 13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the plurality of means for combining of Karasawa et al. with the single means for combining as taught in the prior art embodiment of Karasawa et al. to provide a more compact system with less parts. Further, Konno et al. teaches a light illumination device (fig. 5) which produces a primary beam (at M) which has a substantially uniform flux intensity substantially across the initial beam of light (column 5, lines 43-52) and has a rectangular cross sectional area (using lens element 102, fig. 3; column 3, lines 5-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the light source of Karasawa et al. with that of Konno et al. to have a more uniform intensity light beam and provide a more consistent image. The method of utilizing the structure of the claim is inherent therein.

Response to Arguments

Applicant's arguments filed April 18, 2006 have been fully considered but they are not persuasive.

Applicant argues that the prior art fails to teach or suggest the newly added limitations regarding a beam stop. As stated in the rejection above the liquid crystal light valves act as beam stops capable of blocking errant light from passing through the aperture of the valve.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L. Pritchett whose telephone number is 571-272-2318. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joshua L Pritchett
Examiner
Art Unit 2872

JLP 



DREW A. DUNN
SUPERVISORY PATENT EXAMINER